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**Post-Grading Surface Soil Sampling Report
Meadow Park Phase 2 Including Bay Vista Apartments
Novato, California**

Dear Rob,

1.0 INTRODUCTION AND OVERVIEW

This letter presents the results of Davies Associates' (DA) post-grading surface soil sampling at Phase 2 of Novato Community Partner's (NCP) Meadow Park residential development in Novato, California. Meadow Park comprises about 135 acres previously known as the Capehart Housing and Hillside Housing areas of the Department of Defense Housing Facility at former Hamilton Air Force Base (HAFB) in Novato, California as shown on the attached Figure 1.

Capehart/Hillside Housing consisted of approximately 560 military multi-family residential housing units located in 222 buildings. Capehart Housing was built and used between the early 1960's and the mid 1990s. The Air Force owned the housing units from the early 1960's to 1973 when the property was transferred to the U.S. Navy (Navy) which it operated until the housing operations ceased in 1996. The Capehart and Hillside Housing areas were transferred from the Navy, via the Novato Public Finance Authority (NPFA), to NCP. NCP subsequently obtained an approved precise development plan from the City of Novato (City) for Meadow Park and has developed the site in two phases. Phase 2 also includes the Bay Vista Apartments as shown on attached Figure 2. NCP has demolished all 222 former housing buildings, regraded all portions of Phases 1 and 2 and constructed approximately 351 new moderate and low-income for-sale housing units, 77 low and very low rental townhomes, and 220 rental apartments.

As mentioned above and discussed below, the grading and redevelopment of Meadow Park has taken place in two phases and NCP voluntarily agreed to conduct post-grading surface soil sampling and analysis for each phase to confirm that lead-based paint (LBP) levels in soil were below the California Environmental Protection Agency, Department of Toxic Substances Control's (DTSC) standard for residential land use. The Phase 1 post-grading soil sampling and analysis was conducted in late 2002 and found that all lead concentrations were well below the DTSC residential standard. The Phase 2 grading has been completed and DA developed a Sampling and Analysis Plan (SAP) to confirm that LBP levels in surface soils were also below the DTSC standard for residential land use. The SAP was approved by the DTSC and implemented by DA in late November 2006; the soil sampling analytical results for lead are presented in this report.

1.1 Consent Order and Removal Action Workplan

Prior to the transfer of Capehart/Hillside Housing, Navy site investigations identified elevated levels of LBP in soil at five residential units on the Capehart Housing property. In order to

address DTSC concerns regarding these sampling results and to facilitate the transfer of the property, NCP voluntarily agreed to undertake removal the elevated LBP soil once the property was transferred. Therefore, NCP entered into a Consent Agreement (Docket No. HAS-A 00/01-021) with NPFA and DTSC in August 2000 to remove the LBP soils from the five residential units. In accordance with the Consent Agreement, a Removal Action Workplan (RAW) was prepared by Harding ESE in October 2000 that described the soil removal and confirmation sampling at the five residential units. The LBP soil removal action objective was to achieve an average lead concentration of 400 milligrams per kilogram (mg/kg) or less in the soil at the units, which was the regulatory standard at the time. The RAW was approved by the DTSC in their letter dated November 22, 2000.

1.2 Leaded Soil Remediation

Pacific States Environmental Contractors, Inc. excavated about 15 cubic yards of LBP soil in June 2001 from the five buildings in accordance with the RAW. The excavated soils were properly disposed offsite at a state-permitted Class II landfill. A total of 28 discrete confirmation soil samples were collected from the excavations and analyzed for lead. All confirmation soil sample analytical results for lead were less than 20 mg/kg, well below the level considered safe for residential use. DTSC approved the lead soil removal and confirmation sampling results in their letter dated July 31, 2001; no further remedial action was required by the DTSC.

1.3 Phase 1 and Phase 2 Sampling and Analysis Plans

1.3.1. Phase 1 SAP - As mentioned above, DTSC requested that, after the residential units were demolished and the site was graded for the new development, the graded surface soils be sampled and analyzed for lead to confirm that building demolition had not released LBP to the soil. To comply with the request, DA prepared a Phase 1 SAP dated November 1, 2002, on behalf of NCP that was consistent with the requirements of the Consent Agreement and the RAW. The goal of the SAP was to collect representative surface soil samples at selected locations throughout Meadow Park Phase 1 to confirm that post-grading residual lead concentrations in surface soil did not exceed the DTSC's standard for residential land use of 150 mg/kg. DA, NCP and DTSC agreed that the potential areas in Phase 1 where future residents, especially children, would have the greatest potential for exposure to residual lead in soils, if present, would be at children's playgrounds, the Pacheco Creek Corridor in areas of thin fills and residential areas with thin fills where children could congregate to play. Seventeen confirmation soil sample locations and the sample type [a three-point composite or individual (discrete) sample] were presented in the SAP. Each of the subsamples for the three-point composite sample was to be collected at a location that represented a separate building, if possible. The SAP's sampling locations and protocols were approved by the DTSC in their letter dated December 6, 2002.

1.3.2. Phase 2 SAP - DA prepared a Phase 2 SAP draft dated November 17, 2006, on behalf of NCP that was consistent with the requirements of the Consent Agreement and the RAW. The Phase 2 SAP's goal was the same as the Phase 1 SAP; collect representative surface soil samples at selected locations throughout Meadow Park Phase 2, including the Bay Vista Apartments, to confirm that post-grading residual lead concentrations in surface soil did not exceed the DTSC's current standard for residential land use of 150 mg/kg. The Phase 2 SAP incorporated changes suggested by the DTSC to DA's draft sampling plan. DTSC approval was sent via e-mail on November 20, 2006, and DTSC's written approval was provided in their letter dated December 21, 2006.

As mentioned above, NCP's Phase 2 development consisted of the residential units and pocket parks plus the Bay Vista Apartments residential units and the Community Center. The Bay Vista Apartments portion of Phase 2 consists of the former Hillside Housing area and the very southeast corner of the Capehart Housing area (Figures 1 and 2). Since NCP has other entities involved in the apartments, the soil sampling for the Phase 2 units and for the Bay Vista Apartments were addressed separately in the Phase 2 SAP and are also addressed separately in this report.

1.3.2.1. Soil Sample Locations - DA, NCP and DTSC agreed that the potential areas in Phase 2 and the Bay Vista Apartments where future residents, especially children, would have the greatest potential for exposure to residual lead in soils, if present, included (1) children's playgrounds at the two Phase 2 Neighborhood Pocket Parks and the Bay Vista Apartments Community Center, (2) residential areas with thin fills at locations where children were likely to congregate to play, (3) areas where cuts are less than two feet deep and (4) the ease of access to the surface soils. Accessibility is a key criterion because the landscaping primarily consists of planted areas containing large bark chips and numerous shrubs, bushes and trees where access and potential exposure to lead in the underlying surface soils is very unlikely. Therefore, these areas were not considered preferential soil sampling locations. The remaining landscaped areas are grass sod and vary in size from several square feet to a few hundred square feet and range from flat to moderately sloped. The smaller and/or steeper sloped grass areas are unlikely to be very attractive for children to play on because of their inadequate size and/or sloping surface so these areas were not considered preferential soil sampling locations. Therefore, the selected sampling locations were medium to large grassy areas that received fill and/or had cuts less than two feet thick. The specific soil sampling locations and rationale are discussed in Section 2.

1.3.2.2. Soil Sample Types - Surface soil sample types included three-point composite and discrete. Similar to the Meadow Park Phase 1 soil sampling, three-point composite surface soil samples were collected from beneath selected grassy residential locations at Phase 2 and the Bay Vista Apartments. Three point-composite samples also were to be collected from selected grassy areas at the two Phase 2 Neighborhood Pocket Parks and the Bay Vista Apartments Community Center. Discrete soil samples were to be collected in the shredded wood covered areas containing play equipment at one of the Neighborhood Pocket Parks. Specific soil sampling types are discussed below.

2.0 PHASE 2 POST GRADING SOIL SAMPLING AND ANALYSIS

2.1. Specific Soil Sample Locations and Types

Since another entity is involved with NCP at the Bay Vista Apartments as mentioned above, the specific sampling locations and type for it and Meadow Park Phase 2 are discussed separately below.

2.1.1. Meadow Park Phase 2 Soil Sample Locations and Types - In general, the residential areas were brought to the desired elevation during the Phase 2 site grading and were covered with a few inches of topsoil and grass (i.e. sod) or covered with bark. Using the four sample location selection criteria discussed in Section 1.3.2.1 above and based on review of the cut and fill thicknesses, the landscape plans and a visit to the Site, the selected soil sampling locations and sample types were presented in the Phase 2 SAP and are presented in Table 1. These also are the actual locations where the samples were collected.

Table 1 - Phase 2 Residential Soil Sampling			
Sample Number ¹	Sample Location Figures	Sample Type	Sampling Depth
P2-1	Figure 3	3-Point Composite	At the cut surface soil beneath the grass
P2-2	Figure 3	3-Point Composite	At the cut surface soil beneath the grass
P2-3	Figure 3	3-Point Composite	At the cut surface soil beneath the grass
P2-4	Figure 3	3-Point Composite	At the cut surface soil beneath the grass
P2-5	Figure 3	3-Point Composite	At the cut surface soil beneath the grass
P2- 6	Figure 3	3-Point Composite	At the cut surface soil beneath the grass
P2-7	Figure 3	3-Point Composite	At the cut surface soil beneath the grass
P2-8	Figure 3	3-Point Composite	At the fill surface soil beneath the grass
P2-9	Figure 3	3-Point Composite	At the cut surface soil beneath the grass
P2-13	Figure 3	3-Point Composite	At the cut surface soil beneath the grass
P2-14	Figure 3	3-Point Composite	At the cut surface soil beneath the grass
P2-15	Figure 3	3-Point Composite	At the cut surface soil beneath the grass
P2-16	Figure 3	3-Point Composite	At the fill surface soil beneath the grass

Also using the sample location and the type selection criteria discussed in Section 1.3.2.1 above, the selected soil sampling locations and sample types for Neighborhood Pocket Parks A and B were presented in the Phase 2 SAP and are presented in Tables 2A and 2B, respectively. These are the actual locations where the samples were collected. Park A (Figures 3 and 4) has two separate areas with grass sod placed over the cut surface soils and a shredded wood covered area containing play equipment adjacent to the second grass area. While cuts greater than six feet deep were made to construct the park, soil samples were collected because it will be a popular play area for children. Therefore, a three-point composite sample was collected from the first grass area for areal coverage and a discrete sample was collected from the second grass area and in the shredded wood covered play area at the base of the slide where usage is most likely to disturb underlying surface soils. Park B (Figures 3 and 5) received up to a few feet of fill so it was sampled. Park B has a larger grass area overlying the fill but it does not have any play equipment. Therefore, two three-point composite surface soil samples were collected beneath the grass sod. The sample locations in Tables 2A and 2B are the actual locations where the samples were collected.

Table 2A - Phase 2 Neighborhood Pocket Park A Soil Sampling			
Sample Number	Sample Location Figures	Sample Type	Sampling Depth
P2-10	Figures 3 and 4	3-Point Composite	At the cut surface soil beneath the grass
P2-11	Figures 3 and 4	Discrete	At the cut surface soil beneath the grass next to the play equipment area.
P2-12	Figures 3 and 4	Discrete	At the cut surface soil beneath the shredded wood at the slide exit.

Table 2B - Phase 2 Neighborhood Pocket Park B Soil Sampling			
Sample Number	Sample Location Figures	Sample Type	Sampling Depth
P2-17	Figures 3 and 5	3-Point Composite	At the fill surface soil beneath the grass
P2-18	Figures 3 and 5	3-Point Composite	At the fill surface soil beneath the grass

2.1.2 Bay Vista Apartment Sample Locations and Types - As with the other Phase 2 grading, the landscape areas sampled were brought to the desired elevation and covered with a few inches of grass sod or bark. Using the four sample location selection criteria discussed in Section 1.3.2.1 above, the selected soil sampling locations (Figures 6 and 7) and sample types were presented in the Phase 2 SAP and are presented in Table 3. These are the actual locations where the samples were collected.

Table 3 - Bay Vista Apartments Residential Soil Sampling			
Sample Number	Sample Location Figures	Sample Type	Sampling Depth
BV-1	Figure 6	3-Point Composite	At the fill surface soil beneath the grass
BV-2	Figure 6	3-Point Composite	At the fill surface soil beneath the grass
BV-3	Figure 6	3-Point Composite	At the cut surface soil beneath the grass
BV-4	Figure 7	3-Point Composite	At the fill surface soil beneath the grass
BV-5	Figure 7	3-Point Composite	At the cut surface soil beneath the grass
BV-6	Figure 7	3-Point Composite	At the fill surface soil beneath the grass

The Bay Vista Apartments Community Center (Figures 7 and 8) has a good size grass area overlying fill soils and a fenced in play yard that has a small grass area and play equipment surrounded by shredded wood. Also using the four sample location and the type selection criteria discussed in Section 3.2 above and based on review of the cut and fill thicknesses, the landscape plans and a visit to the Site, the selected soil sampling locations and sample types to be collected at the Community Center were presented in the Phase 2 SAP and are presented in Table 4.

Table 4 - Bay Vista Apartments Community Center Soil Sampling			
Sample Number	Sample Location Figures	Sample Type	Sampling Depth
BV-7	Figures 7 and 8	3-Point Composite	Fill surface soil beneath the large lawn next to play yard.
BV-8	Figures 7 and 8	Discrete	Cut surface soil beneath the small lawn inside the play yard.
BV-9	Figures 7 and 8	Discrete	Fill surface soil beneath the shredded wood at the slide exit.

Sample BV-9 was not collected as discussed in Section 2.3 below.

2.1.3. Duplicate Soil Samples - In accordance with the Phase 2 SAP, three duplicate soil samples were collected from the 27 locations (approximately 10%) for quality control purposes. This included duplicates from locations P2-3 and P2-17 representing the 18 Phase 2 locations and BV-7 representing the nine Bay Vista Apartment locations.

2.2. Soil Sampling Protocol

All soil samples were collected in accordance with the following protocols presented in the Phase 2 SAP.

- Each sample location was staked in the field by DA on November 22, 2006, and surveyed in the same day by a licensed surveyor from RBF Consulting who performed the surveying during the site development grading. RBF Consulting provided the soil sample locations in the California coordinate system which are presented on Tables 5A for the Phase 2 Residential and Neighborhood Pocket Parks. The California coordinates for the Bay Vista Apartments Residential and Community Center soil sample locations are presented on Table 5B. All subsamples of the three-point composite samples were measured from the staked locations and entered into the field log book which is retained in DA's files.

Table 5A – Phase 2 Residential and Neighborhood Pocket Park Soil Sample Location California Coordinates			
Sampling Location¹	Northing	Easting	Elevation
P2-1	2210310.227	5979295.795	14.981
P2-2	2210434.006	5979578.518	16.882
P2-3	2210947.365	5979673.615	28.783
P2-4	2211166.455	5979606.336	33.517
P2-5	2211500.661	5979529.083	37.386
P2-6	2211957.514	5979518.024	36.635
P2-7	2212184.649	5979026.966	31.921
P2-8	2212335.226	5979171.715	26.059
P2-9	2212835.132	5978994.054	48.546
P2-10	2212677.157	5978986.194	45.714
P2-11	2212636.778	5978977.587	50.309
P2-12	2212592.137	5978939.473	49.458
P2-13	2212766.493	5978950.178	51.132
P2-14	2212715.019	5978625.111	71.276
P2-15	2212335.547	5978663.534	104.129
P2-16	2212250.071	5978550.478	107.753
P2-17	2212080.207	5978549.018	110.881
P2-18	2212030.475	5978473.601	111.598

¹ See Figures 3, 4 and 5 for sample locations.

Table 5B - Bay Vista Apartments Residential and Community Center Soil Sample Location California Coordinates			
Sampling Location ¹	Northing	Easting	Elevation
BV-1	2210073.918	5979043.743	25.205
BV-2	2209890.776	5979061.335	22.512
BV-3	2209826.234	5979238.744	21.498
BV-4	2209341.322	5978567.373	35.037
BV-5	2209171.514	5978854.587	33.171
BV-6	2209215.955	5979310.775	28.658
BV-7	2209521.284	5978984.007	27.897
BV-8	2209489.957	5978976.901	28.213
BV-9	2209450.576	5978953.715	28.127

¹ See Figures 6, 7 and 8 for sample locations.

- Soil samples were collected on November 24 and 25, 2006 from the upper two to three inches of surface soils using a new and clean sampling spoon so decontamination of sampling equipment was not necessary. All samples were placed in glass jars, labeled, and stored in boxes for transport under chain of custody control procedures to TestAmerica's laboratory in Morgan Hill, California, via their company courier.
- All sampling activities were conducted in accordance with DA's Site Safety and Health Plan prepared specifically for this project by Peter B Rice, a Certified Industrial Hygienist, Certified Safety Professional, and Registered Environmental Health Specialist.

2.3. Deviations from the Phase 2 SAP

There were two deviations from the Phase 2 SAP. The first deviation was that the SAP Section 3.4 Soil Sampling Protocols stated, in part, that the sample containers would be *stored in a chilled insulated sample container for transport*. However, since the soil samples were only being analyzed for lead, TestAmerica believed it was not necessary to place them in chilled ice chests and recommended that the soil samples be placed in the boxes that the sample containers came in. DA followed the laboratory's recommendation.

The second deviation was that the discrete soil sample BV-9 (Figures 7 and 8) that was planned to be collected at the foot of the slide within the play area at the Bay Vista Apartments Community Center was not collected. This location was initially selected because it was thought that children landing at the foot of the slide could potentially push the shredded wood away over time and expose the underlying soil that could contain lead. However, there are about 12 or more inches of shredded wood at the foot of the slide, which was difficult to dig through with a shovel, so the chances of penetrating through it are remote. In addition, there was a thick rubber membrane liner underlying shredded wood that could not be penetrated to reach the soil below it without cutting through the liner with a sharp knife or similar tool. Therefore, a field decision was made not to penetrate the liner because the potential exposure to underlying soil is very remote.

2.4. Soil Sample Analytical Procedures

As mentioned above, each soil sample was delivered under chain of custody procedures to TestAmerica in Morgan Hill for total lead analyses in accordance with USEPA Test Method 6010. In accordance with the Phase 2 SAP, TestAmerica was instructed to homogenize each of the three subsamples individually prior to combining the aliquots into one three-point composite sample for analysis and to archive the remaining portion of each subsample for individual analysis if subsequently requested to do so. TestAmerica followed this protocol.

3.0. SOIL SAMPLE ANALYTICAL RESULTS

The soil sample analytical results for lead at the Phase 2 Residential and Neighborhood Pocket Park areas and at the Bat Vista Apartments Residential and Community Center areas are presented below. Test America's Level III Data Package is included as Attachment 2.

3.1. Phase 2 Residential and Neighborhood Pocket Park Analytical Results - The soil sample analytical results for lead in the Phase 2 Residential and Neighborhood Pocket Parks A and B areas are presented in Table 6. The two duplicate soil sample results also are presented in Table 6. The lead concentrations for the residential soil samples ranged from not detected [(ND) at a reporting limits of 10 mg/kg for P2-2 (A-C) and 5.0 mg/kg for P2-3 Dup (A-C)] to 11 mg/kg for P2-1 (A-C). The lead concentrations for the Neighborhood Pocket Park A soil samples ranged from 7.2 mg/kg at P2-11 to 11 mg/kg for P2-12. The lead concentrations for the Neighborhood Pocket Park B soil samples ranged from 6.5 mg/kg at P2-17 Dup (A-C) to 7.1 mg/kg at P2-18. All of the residential and park area analytical results showed that lead concentrations in soil are well below the DTSC residential standard of 150 mg/kg.

Table 6 - Meadow Park Phase 2 Residential and Neighborhood Pocket Park Soil Sampling Results for Lead				
Sample Location	Sampling Date	Lead Concentration¹	Sample Type	Laboratory Number
Residential				
P2-1 (A-C)	11/24/06	11	3- point composite	MPK0882-01
P2-2 (A-C)	11/24/06	ND	3- point composite	MPK0882-02
P2-3 (A-C)	11/24/06	5.6	3- point composite	MPK0882-03
P2-3 Dup (A-C)	11/24/06	ND ²	3- point composite	MPK0882-27
P2-4 (A-C)	11/24/06	5.7	3- point composite	MPK0882-04
P2-5 (A-C)	11/24/06	7.8	3- point composite	MPK0882-05
P2-6 (A-C)	11/24/06	8.4	3- point composite	MPK0882-06
P2-7 (A-C)	11/24/06	7.6	3- point composite	MPK0882-07
P2-8 (A-C)	11/24/06	8.9	3- point composite	MPK0882-08
P2-9 (A-C)	11/24/06	8.8	3- point composite	MPK0882-09
P2-13 (A-C)	11/24/06	6.5	3- point composite	MPK0882-13
P2-14 (A-C)	11/24/06	9.9	3- point composite	MPK0882-14
P2-15 (A-C)	11/24/06	6.7	3- point composite	MPK0882-15
P2-16 (A-C)	11/24/06	8.1	3- point composite	MPK0882-16
Neighborhood Pocket Park A				
P2-10 (A-C)	11/24/06	7.8	3- point composite	MPK0882-10
P2-11	11/24/06	7.2	Discrete	MPK0882-11
P2-12	11/24/06	11	Discrete	MPK0882-12

Table 6 - Meadow Park Phase 2 Residential and Neighborhood Pocket Park Soil Sampling Results for Lead Continued				
Sample Location	Sampling Date	Lead Concentration¹	Sample Type	Laboratory Number
Neighborhood Pocket Park B				
P2-17 (A-C)	11/25/06	6.7	3- point composite	MPK0882-17
P2-17 Dup (A-C)	11/25/06	6.5	3- point composite	MPK0882-28
P2-18 (A-C)	11/25/06	7.1	3- point composite	MPK0882-18

¹ milligrams per kilogram

² Not Detected

3.2. Bay Vista Apartments Residential and Community Center Analytical Results - The soil sample analytical results for the Bay Vista Apartments Residential and Community Center are presented in Table 7. The duplicate soil sample result for BV-7 (A-C) also is presented in Table 7. The lead concentrations for the residential soil samples ranged from 5.0 mg/kg for BV-4 (A-C) to 7.1 mg/kg for BV-6 (A-C). The lead concentrations for the Community Center soil samples ranged from 6.0 mg/kg for BV-7 (A-C) to 8.3 mg/kg for BV-7 Dup (A-C). All of these analytical results showed that lead concentrations in soil are well below the DTSC residential standard of 150 mg/kg.

Table 7 – Bay Vista Apartments Residential and Community Center Soil Sampling Results for Lead				
Sample Location	Sampling Date	Lead Concentration¹	Sample Type	Laboratory Number
Residential				
BV-1 (A-C)	11/25/06	6.1	3- point composite	MPK0882-20
BV-2 (A-C)	11/25/06	5.7	3- point composite	MPK0882-21
BV-3 (A-C)	11/25/06	5.1	3- point composite	MPK0882-22
BV-4 (A-C)	11/25/06	5.0	3- point composite	MPK0882-23
BV-5 (A-C)	11/25/06	7.0	3- point composite	MPK0882-24
BV-6 (A-C)	11/25/06	7.1	3- point composite	MPK0882-25
Community Center				
BV-7 (A-C)	11/25/06	6.0	3- point composite	MPK0882-26
BV-7 Dup(A-C)	11/25/06	8.3	3- point composite	MPK0882-29
BV-8 (A-C)	11/25/06	7.5	3- point composite	MPK0882-19

¹ milligrams per kilogram

4.0. QUALITY ASSURANCE

The Quality Assurance objectives for this project and an evaluation of the analytical data for Phase 2 and the Bay Vista Apartments are presented below.

4.1. Quality Assurance Objectives

The Quality Assurance Project Plan (QAPP) included in DA's November 21, 2006, SAP presented the Quality Assurance/Quality Control (QA/QC) objective for this project, which was to ensure that data of known and acceptable quality were developed. The QA objectives of this

project are to assess and document the precision, accuracy, representativeness, completeness, and comparability of all sampling and analyses performed. DA evaluated the analytical results presented in TestAmerica's Level III Data Package (Attachment 2) using the QA objective criteria presented in the QAPP. The QA objectives are discussed below and apply to both Meadow Park Phase 2 and the Bay Vista Apartments.

4.1.1. Precision - Precision measures the reproducibility of measurements and methods, and is defined for qualitative data as a group of values variability compared with its average value. To assess the precision of the measurement systems used in this project, field duplicates were obtained and analyzed with the samples collected. Precision of laboratory analysis was assessed by comparing the analytical results between laboratory duplicate results. For precision, the relative percent difference (RPD) presented in the QAPP is 25.

4.1.2. Accuracy - Accuracy is the degree to which a given result agrees with the true value. Spiked sample results provide information needed to assess the accuracy of analyses. Specifically, MS percent recoveries (%R) are used to assess accuracy. Five percent of all samples analyzed are spiked with target chemicals for the MS. If the calculated %Rs is close to the known concentrations as defined within the limits set by each method, the reported sample concentrations are assumed to be accurate. The %R for lead presented in the QAPP is 72-125 percent.

4.1.3. Completeness - Completeness is a measure of the amount of valid data obtained from a measurement system compared to the total amount expected to be obtained under normal conditions. A 100% completeness figure was presented in the QAPP for this project.

4.1.4. Representativeness - Representativeness expresses the degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition. Careful choices and the use of appropriate methods in the field will ensure that samples are representative. Representativeness is primarily a subjective judgment about the collected data. Considerations for evaluating the representativeness of the data included: (1) the location and number of samples that were collected, (2) the methods used to obtain the samples at the site, (3) the appropriateness of the analytical method to the type of sample obtained, (4) environmental conditions at the time of sampling, and (5) results of replicate and duplicate samples.

4.1.5. Comparability - Comparability expresses the confidence with which one data set can be compared to another. Data was calculated and reported in units consistent with those used by organizations reporting similar data to allow comparability of databases. Data will be reported in milligrams per kilograms (mg/kg) for soil samples for this project.

4.2. Phase 2 QA Evaluations

The precision, accuracy, representativeness, completeness, and comparability of the sampling and analyses performed at Phase 2 Residential and Neighborhood Pocket Park areas are presented below.

4.2.1. Precision - The QC batch sample 6K30011 (page 9 of the TestAmerica Level III Data Package) representing samples P2-1 (A-C) through P2-11 (A-C) had a matrix spike duplicate relative percent difference (RPD) of 171 which exceeds the RPD of 25 prescribed in the QAPP. In conversations with TestAmerica's QA/QC Manager, she stated that the analytical results of the samples from this batch are valid even with the RPD exceedance. The RPD for QC batch sample 6K30010 (also on page 9 of the TestAmerica Level III Data Package) representing

samples P2-12 (A-C) through P2-18 (A-C) and duplicate samples P2-3 Dup (A-C) and P2-17 Dup (A-C) was 2 which is less than the RPD of 25 prescribed in the QAPP.

4.2.2. Accuracy - The QC batch sample 6K30011 percent recovery was 3,428 that is well outside the allowable recovery limits of 72 to 125 percent in the QAPP. However, both the laboratory control sample and the matrix spike duplicate sample recoveries of 100 and 90 percent, respectively, which are within the 72 to 125 percent recovery limits and, according to TestAmerica's QA/QC Manager, demonstrate that these soil sample analytical results are valid. The percent recoveries for QC batch sample 6K30010 representing samples P2-12 (A-C) through P2-18 (A-C) and duplicate samples P2-3 Dup (A-C) and P2-17 Dup (A-C) were all between 92 and 96 percent which also are within the 72 to 125 percent recovery limits and demonstrate that these soil sample analytical results are valid.

4.2.3. Completeness - All of the data are valid as expected. Therefore, the completeness is 100 percent as prescribed in the QAPP.

4.2.4. Representativeness - The data set is considered representative because (1) the number and location of samples adequately covers the potential areas where children could potentially be exposed to lead, (2) standard sampling methods were used that were in accordance with the approved SAP, (3) the analytical method used is the appropriate one for lead in soil, (4) there were no unusual environmental conditions at the time of sampling and (5) the results of the two duplicate samples were very close to their respective primary sample.

4.2.5. Comparability - The data set is comparable to the data set from the Phase 1 post-grading sampling conducted in 2002 and previous Navy data sets collected prior to the redevelopment.

4.3. Bay Vista Apartments Evaluations

The precision, accuracy, representativeness, completeness, and comparability of the sampling and analyses performed at the Bay Vista Apartments Residential and Community Center areas are presented below.

4.3.1. Precision - The RPD for QC batch sample 6K30010 representing samples BV-1 (A-C) through BV-8 (A-C) was 2 which is less than the RPD of 25 prescribed in the QAPP. The RPD for QC batch sample 6L05029 (pages 9 and 10 of the TestAmerica Level III Data Package) representing sample BV-7 Dup (A-C) was 6 which is less than the RPD of 25 prescribed in the QAPP.

4.3.2. Accuracy - The percent recoveries for QC batch sample 6K30010 representing samples BV-1 (A-C) through BV-8 (A-C) were all between 92 and 96 percent which are within the 72 to 125 percent recovery limits and demonstrate that these soil sample analytical results are valid. The percent recoveries for QC batch sample 6L05029 representing sample BV-7 Dup (A-C) were all between 84 and 97 percent which are within the 72 to 125 percent recovery limits and demonstrate that these soil sample analytical results are valid.

4.3.3. Completeness -. Initially it was planned that nine samples would be collected but, as described in Section 2.3, the sample from BV-9 was not collected because a field decision was made not to penetrate the rubber membrane liner. The elimination of this sample lowered the completeness to 89 percent. All of the data from the other eight samples are valid as expected.

4.3.4. Representativeness - The data set is considered representative because (1) the number and location of samples adequately covers the potential areas where children could potentially be exposed to lead, (2) standard sampling methods were used that were in accordance with the approved SAP, (3) the analytical method used is the appropriate one for lead in soil, (4) there were no unusual environmental conditions at the time of sampling and (5) the results of the duplicate sample was very close to its respective primary sample.

4.3.5. Comparability - The data set is comparable to the data set from the Phase 1 post-grading sampling conducted in 2002 and previous Navy data sets collected prior to the redevelopment.

5.0. CONCLUSIONS AND RECOMMENDATIONS

DA's conclusions and recommendations for the Phase 2 Residential and Neighborhood Pocket Park areas and the Bay Vista Apartments Residential and Community Center areas are presented below.

5.1 Phase 2 Residential and Neighborhood Pocket Parks

The lead concentrations detected in the post-grading confirmation soil samples from 18 locations and two duplicate soil samples collected throughout the Phase 2 Residential and Neighborhood Pocket Park areas vary from not detected to 11 mg/kg. Therefore, DA concludes the following:

- All soil sample results are valid and well below the DTSC lead standard of 150 mg/kg for residential land use.
- The lead concentrations in the soil samples are similar to background soil concentrations at other areas of the former HAFB indicating that residual lead based paint in soil from previous demolition activities is not present at the development.
- The development is suitable for residential occupancy and does not pose a risk to human health or safety of residents with respect to lead based paint in soil.

Based on the above soil sampling and the analytical results, DA concludes and that additional post-grading confirmation soil sampling and analyses is not necessary and recommends that no further actions be taken.

5.2 Bay Vista Apartments Residential and Community Center

The lead concentrations detected in the post-grading confirmation soil samples from eight locations and one duplicate soil sample collected throughout Bay Vista Apartment Residential and Community Center areas vary from 5.0 to 8.3 mg/kg. Therefore, DA concludes the following:

- All soil sample results are valid and well below the DTSC lead standard of 150 mg/kg for residential land use.
- The lead concentrations in the soil samples are similar to background soil concentrations at other areas of the former HAFB indicating that residual lead based paint in soil from previous demolition activities is not present at the development.

- The development is suitable for residential occupancy and does not pose a risk to human health or safety of residents with respect to lead based paint in soil.

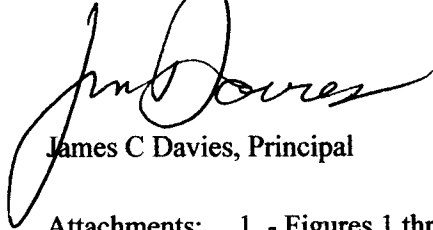
Based on the above soil sampling and the analytical results, DA concludes that additional post-grading confirmation soil sampling and analyses is not necessary and recommends that no further action be taken.

6.0. CLOSING

DA trusts that this is the information NCP requires at this time. This report will be provided to the DTSC for review and approval that the post-grading confirmation soil sampling activities and results demonstrated that the Phase 2 Residential and Neighborhood Pocket Park areas and the Bay Vista Apartments Residential and Community Center areas are suitable and safe for residential occupancy. If you have any questions, please contact me at 415/2580-0304 or at jdavies@daviesassoc.com.

Yours truly,

Davies Associates



James C Davies, Principal

Attachments: 1. - Figures 1 through 8
2. - TestAmerica Level III Data Package

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